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ABSTRACT

A theme issue of the Iowa State Historical Department magazine ("The Goldfinch") focuses on elementary readings and activities about Iowa prairie life. A total of 13 articles is included. In "History Makers," eight letters recount student and teacher prairie experiences. "The Prairie: Problems or Paradise?" recounts the trials and successes of prairie life for explorers and farmers. "Help William Get to Iowa" poses a simple map exercise dealing with settlers. "William Crosses the Prairie" summarizes the ordeals of a settler family crossing the prairie. "Good Times" cites the contest of the corn-husking bee. "Settling On the Praire: Hard Work and Hard Winters" examines farmer life on the prairie. "Strawberries and Rattlesnakes" presents a board game illustrating settler survival. "What Do You Do With A Slough?" describes life in the prairie swamps. "Map Game" illustrates land purchasing. "The People of Iowa" discusses an Iowa botanist. "Are There Any Prairies Today?" assesses prairie land yesterday and today. "History Mystery" involves students in analyzing a photograph. Finally, "Pass It On" provides related fun exercises. (TRS)

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The Goldfinch

Volume 7, Number 2
November 1985

Editor, GINALIE SWAIM

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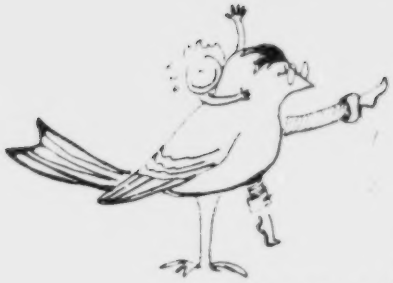

Meet Wild Rosie, your official "Goldfinch Tour Guide" for a trip into Iowa's past. This map shows some places we'll visit in this issue.

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ON THE COVER: *As the sky fills with smoke, a farmer hurries to plow a fire strip. Huge fires swept across the Iowa prairies 150 years ago. Settlers had to learn how to protect their farms from the fire.*

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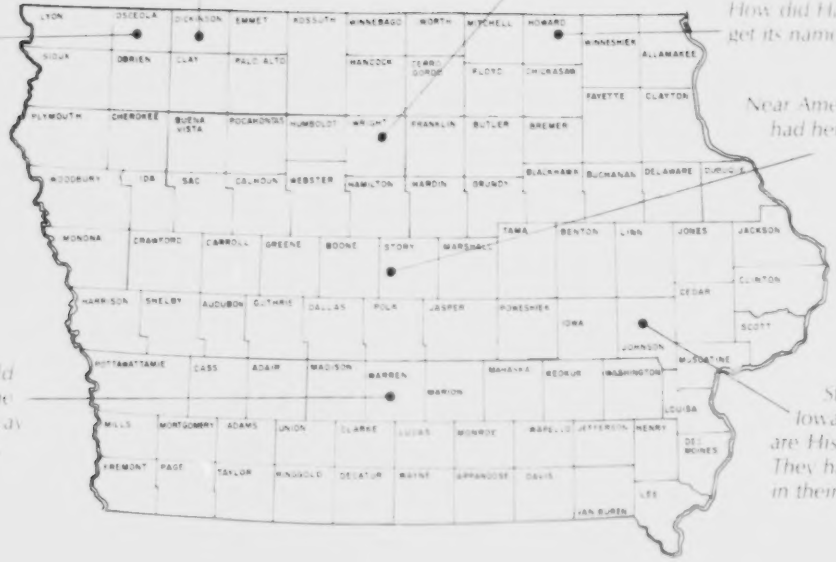
In northwestern Iowa, farmers found a way to get rid of too much water.

If you were a settler in 1875, where would you buy land in Wright County?

Families in Osceola County know what it was like to live in sod houses.

How did Hayden Prairie get its name?

Near Ames, a farm girl had her own prairie to explore.



An eight-year-old camps out on the prairie, on his way to Milo in 1855.

Students at an Iowa City school are History-Makers. They have a prairie in their schoolyard.

ASK WILD ROSIE

"Rosie, why did prairie grasses grow so tall? Was it because no one had ever cut them?"
"No, prairie grasses are special kinds of grasses that grow several feet high each year. They're not like grasses on our lawns."

"Rosie, how do you pronounce *slough*?"
"Like *glue*. Here's my latest poem about the muddy, marshy places called *sloughs*:

Phew! At last we're through
the goo in the slough.

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History-Makers

DEAR READERS: Be a history-maker! The *Goldfinch* is a magazine about the history of Iowa. Wild Rosie wants to know what you've discovered about Iowa's past. Did your class work on special projects for Iowa History Month? Are you helping to save something that's old? Have you found an old letter, diary, photograph, or object that tells something about the past? Send your stories, letters, or artwork to the *Goldfinch*, 402 Iowa Avenue, Iowa City, Iowa 52240. If we can we'll print them in the History-Makers section.

We received this letter from Elizabeth Adams Ebbotts. She was one of the children who visited the Mesquakie Settlement (see the September Goldfinch*). As an adult, she has continued to study and write books about Native American culture. Here is part of her letter.*

Dear *Goldfinch*,

I, too, was a student in Miss Holmes' second grade class, 1934-35. [Here are] some of the activities that I still recall. We made costumes and decorated them with Indian designs (I still have mine). We made dyes from natural products (black walnuts, elderberries, blood root plants). We made a drum from a fresh calf skin that was soaked in lye, scraped with rocks to get the hair off (did that ever stink!), stretched and tied over a naturally hollowed log section. (It also gave Miss Holmes a bad infection.) We made a tepee, learned an Indian song, and presented an Indian assembly program for the school. We visited a Navajo exhibit at the University where Indian women were using yucca roots for soap suds (and they did not sting your eyes). Through these activities we developed an appreciation of Indian culture and values. . . *Elizabeth Adams Ebbott*
White Bear Lake, Minnesota

Students of Shimek School (Iowa City) have a small prairie behind their school. In 1972 prairie grasses were planted. Since 1983 students in all grades have planted wildflowers. The following work is by students in Colleen Hogan's class.

Prairies are disappearing fast! America's prairie land is almost gone. But some places, like Shimek School, save prairie. *—Mike VeDepo*

To help the prairie thrive, we did some planting, watering, and caring-for activities. This was done by helpful 5th and 6th graders in the 1984-85 semester. These Shimek kids did their share of the carrying of plants and flowers. Everyone donated trowels, rakes, shovels, and water jugs. We first began to rake and clear weeds from the designated areas for planting. Then we began to get the soil ready for planting. We planted the seeds and put up sticks and strings so as not to step on the plants. Every so often we check on our thriving plants. *—Ann Ellyson*

Tony Donatti and Jessiva Bovey marked where seeds were planted. (Photos courtesy of Linda Boldt.)

Indian grass (drawn by Jenna Stanke), bird's foot violet (Naomi Tucker), New England aster and coneflower (Nicole DeJong), side oats grama (Sarah Johnson), and big bluestem (Nicole DeJong).

The most fun thing I did to the prairie was to help plant some flowers. To help plant the flowers we had to do a buffalo stampede. A buffalo stampede is when you stamp on the seeds you just planted, and it was fun! *—Kelly Kerr*

Our school was named after Bohumil Shimek because he was a pioneer, an engineer, zoologist, geologist, botanist, educator, patriot, and citizen. It is appropriate that the school was named after Mr. Shimek because it has both woods and prairies. *—Chad Cook*

The grass is long and tan.
It sways as the wind blows.
Pitter-patter goes the gentle rain
on the pretty flowers below.

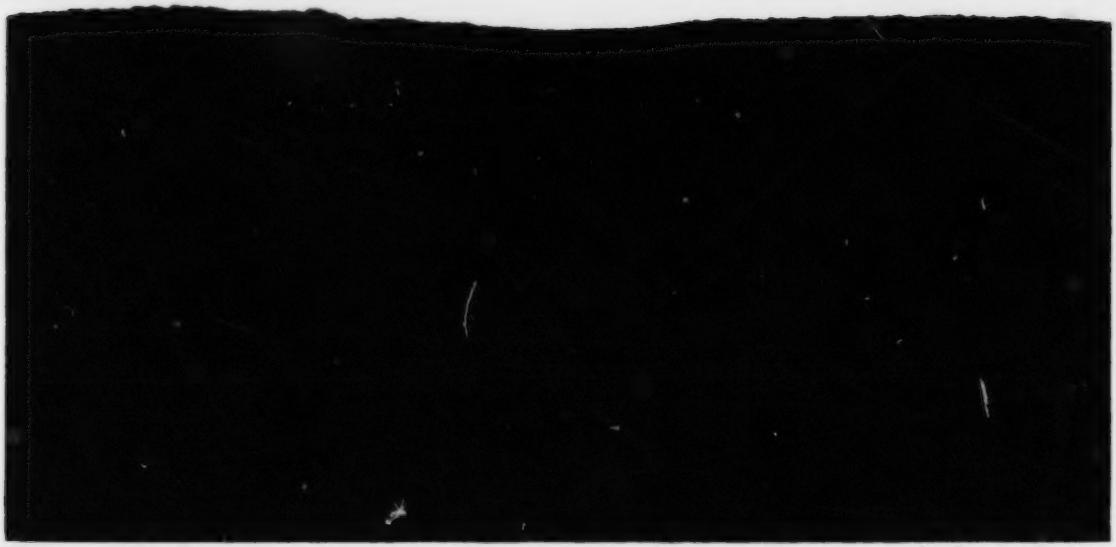
Then the blazing fire burns
down the tall grass.
"Wow!" all the kids say
when the prairie burns down.

Oh and look, the prairie
is coming back!
And so are the animals,
coming to their new home.
—Shannon Schoenfelder

Every 3 to 5 years, we burn our prairie. We burn it because we must act like nature. Long ago, prairies used to have natural fires. Now it is too sheltered to burn on its own. The burning gets rid of shrubs and undergrowth. *—Sarah Johnson*

I've only seen the prairie burn once but not very well because of all the fire engines and firemen they put out around the prairie for our safety. You might think it's great fun to see it burn but to tell you the truth it's kind of boring. *—Kristine Hinrichs*

The Prairie:



Iowa Conservation Commission

Problems or Paradise?

THE GRASS grew so tall that a child walking through it seemed to disappear. Bright flowers and singing birds added color and music to the land. Almost all of Iowa was once a *prairie*.

A prairie is land that is covered with grasses and plants. There are very few bushes or trees, except for forests along rivers and streams.

Native Americans often lived in the river valleys because they could find wood and water there. But on the prairies they hunted deer and elk and gathered plants for food and medicine.

When explorers first saw the prairie, they were amazed. They had never seen such tall grass or so much land without forests. Europe did not have prairies. The eastern United States did not have prairies.

The explorers described the prairies in their journals. They wrote about the thick grasses and all the animals that could be hunted there.

In the 1830s white settlers started moving west towards Iowa. Eager settlers crossed the Mississippi River and claimed land here even before they were legally allowed to. The American government kept forcing the settlers

back until treaties were made with Native American tribes. The government wanted to move Native Americans farther west to make room for settlement.

Finally in 1833 settlers were allowed to enter Iowa. But they avoided the prairies. They built their homes along rivers and streams. Like Native Americans, they needed water and they needed timber for houses, fences, and fuel. Where would they get wood on the treeless prairie? To them, the prairie just meant problems.

Some settlers thought that the prairie soil was not rich and fertile and would not grow good crops. If trees did not grow there, how could corn or wheat survive? They did not realize that prairie soil is very fertile.

Some people felt lonely on the prairie. There were no neighbors for miles and miles. People wanted neighbors—for friendship and for helping one another.

The prairies seemed too big and empty, and the winter winds blew too cold. In the forests, settlers were more protected from the cold.

Traveling across the prairie was difficult, too. At first the roads were only trails in the tall grass. It was easy to head off in the wrong direction because the land all looked the same. Here and there a grove of trees grew, but most of the prairie was rolling hills or flat land covered with tall grasses. People marked trails by tying bits of cloth on the tall stalks of plants.

Where the land was flat, water did not drain away. Settlers called these wet places *sloughs* (slues). Some sloughs were marshes that were filled with water. Others were wet, muddy places where slough grasses grew nine feet high. But

Prairies once covered all the green areas on this map of Iowa. The white areas were wooded river valleys.

these sloughs *looked* like dry prairie. Settlers who tried to drive across these sloughs soon found out that their horses and wagons got stuck in the gooey mud.

"Too big and lonely!" the early settlers said. "No trees, poor soil," they complained. "And all those sloughs—who would want to live on the prairie?"

But soon most of the wooded land along the rivers and streams was all bought and settled. There was no other land to buy *except* the prairie. Perhaps settlers could solve all the problems of living on the prairie.

They found out that the prairie could be farmed. Back in the eastern United States, the land was rocky and covered with forests. There the settlers had to chop down the trees and haul away the rocks before they could plant crops. Here in Iowa there were miles of land without forest or rocks. The soil was very fertile. Despite the problems, the settlers realized that the prairie was a farmer's paradise. □

Help William Get to Iowa

Before you read the true story of William Nutting, help William and his family get to Iowa in 1855. Read Steps 1-7. Then use your finger or a pencil to trace their journey on the map below.

1. The Nutting family leaves their home near Boston, Massachusetts. Father has lost his job. Perhaps out west they can make a new start. First they travel to Buffalo, New York.
2. At Buffalo, the Nuttings board a steamboat. They cross Lake Erie to Cleveland, Ohio.
3. From Cleveland, they take a train to Cincinnati. They live in Cincinnati for a year while Father earns more money to buy land in Iowa.
4. The Nuttings take a steamboat down the Ohio River to St. Louis. The river is low, and the captain must steer the boat carefully around sandbars and dead trees that have fallen into the river.
5. From St. Louis they take a steamboat down the Missouri River to Lexington, Missouri. Father gets a job in Lexington for a year. But the Nuttings are anxious to leave Missouri because many people are arguing and fighting over whether there should be slavery.
6. Father walks to Milo, Iowa, where he has bought land. He buys two oxen and a wagon. He rides back to Lexington.
7. The family loads the wagon and crosses the Missouri River by ferry. William is almost eight and almost in Iowa. (*Begin the story.*)

Kay Chambers

William Crosses the Prairie

NO MORE steamboats or trains for William! On William's eighth birthday, he was happy to be *finally* walking across the Iowa prairie.

Mother and Father took turns driving the oxen. Sometimes everyone walked alongside the wagon. The prairie seemed to stretch on forever, as far as William could see.

When night came, they unhitched the tired oxen from the wagon. The oxen were eager to graze on the prairie grasses. Father tied a bell around the neck of one ox. If the sound of the bell became too soft, he would know the oxen were too far from the campsite.

The oxen had plenty of room for the night—the prairie was huge. But the wagon was packed so full that the Nuttings had to sleep on the ground. They propped up the wagon tongue and threw a carpet over it to make a tent. This was the first time William had camped out. The tinkling of the bell became softer and softer as the oxen grazed. But the Nuttings did not notice. They were all sound asleep in their little tent.

When the sun rose the next morning, the oxen were gone. Right away Father started searching. By a distant grove of trees he saw some cattle. He headed toward the grove. But none of the cattle were his own two oxen. Then he spotted another herd across the prairie. Surely his oxen would be there. He headed in that direction, his long legs swooshing through the tall grass.

All day William and his family waited in the shade of the wagon. The day was hot and William

was getting impatient. Father came back for lunch and then went searching again. Just how far could two clumsy oxen wander?

The next day Father finally brought the oxen back. "About time to move on," William said to himself.

Now every night Father tied up the oxen. But many other cattle and horses ran loose on the prairie. Settlers did not keep their livestock in fenced fields. The whole prairie was their pasture.

At night these horses and cattle came right up to the Nutting's wagon. The cowbells kept the family awake and disturbed the oxen. Father

jumped out of bed and chased them off. But they came right back. Father was determined to get a good night's sleep. He grabbed a sheet and threw it over his shoulders. Flapping his arms, he ran among the horses and cattle to scare them away. In a clatter of cowbells the herd ran off into the dark prairie night.

Every day the Nuttings' wagon rolled and jerked across the prairie. Every night they set up camp in the dark. Their tin lantern had holes punched in the side to let the candlelight shine through. But the glow of one candle was not much. The tall grass and the black night seemed to swallow up the light of the little lantern.

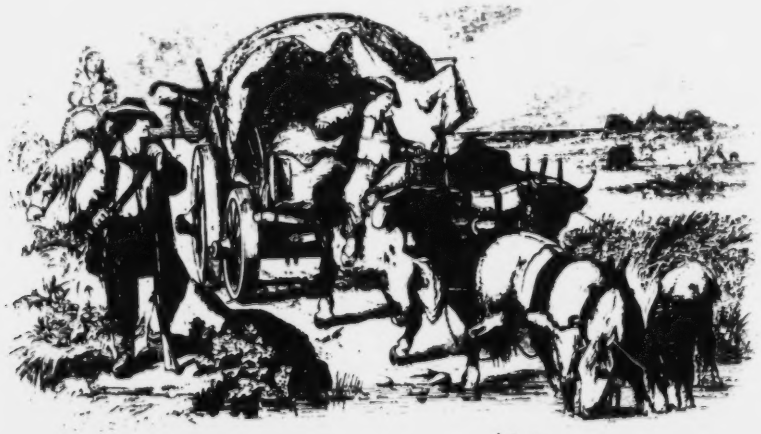
One night William was helping spread the carpets on the prairie for their beds. Suddenly in the darkness he heard a strange rattling sound. Father did not need lantern light to recognize that sound. Time to hitch up and move on. Nobody wanted to sleep near a rattlesnake!

The prairie flowers were as tall as William that August. Birds and butterflies darted about as he walked beside the wagon. On one especially hot day, William wanted desperately to go swimming and cool off. Even the oxen were crazy with thirst.

William could see a row of trees ahead. That probably meant water. Trees always grew along streams. The oxen knew there was water, too. They could smell it. Without anyone in the wagon, the oxen took off running. The heavy wagon swayed from side to side. At any moment it might tip over. The family chased after them but the oxen were already running through the trees.

Suddenly, as if someone had put on the brakes, the oxen stopped. The wagon wheels had gotten jammed behind two trees. Father rushed up and unhitched the oxen. Down the bank they ran, right into the stream.

It wasn't many more days until the Nuttings reached their home near Milo and Otter Creek. The land Father had bought already had a cabin on it, built by an earlier settler. For the first night since the ferry ride across the Missouri River, William slept under a roof instead of under the sky. He had reached his new prairie home. □

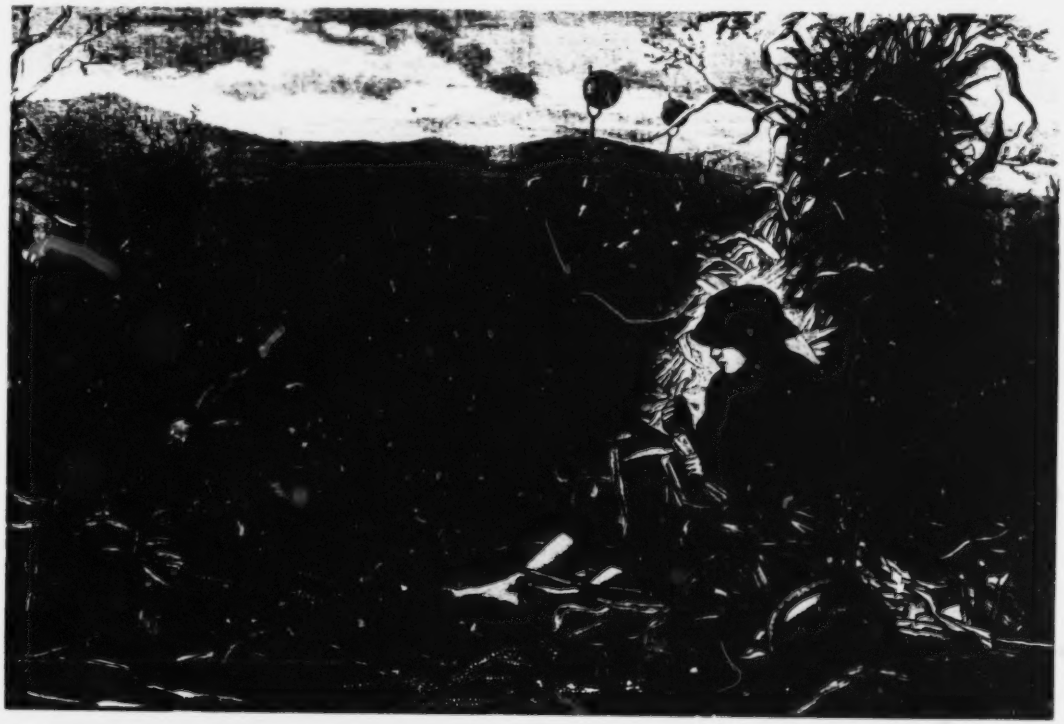


Good Times

At a husking bee, settlers found a way to mix work and play at harvest time. Taking the husk off the ears of corn was turned into a contest between two players or two teams.

To have your own husking bee, you will need two equal piles of corn with the husks still on the ears. Each team sits by their pile of corn. At the word "GO!" each team begins pulling the husks off the ears. The first team to finish their pile wins the contest.

Sometimes settlers had parties after the corn was husked. Your class could have a square dance or serve cornbread and apple cider.



Settling on the Prairie: Hard Work and Hard Winters

BY APRIL the earth had warmed up in Iowa. Spring wildflowers were blooming. The migrating geese were feeding in the sloughs and marshes on their way north. All across Iowa covered wagons were bringing settlers looking for land.

Once a family had bought their land, they began work right away. A lot of jobs had to be done that first summer on the prairie.

The first job was to build a shelter. Even in April a sudden blizzard might sweep across the prairie. A family could die if they did not have a shelter.

A family might sleep in their covered wagon until the house was done. The house might have only one or two rooms and maybe two windows. In later years, when they had more money and time, they would build a bigger home.

Settlers who owned timberland could cut down their own trees and build a simple log cabin. But some settlers did not own timberland and could not afford to buy wood. They built sod houses. (Sod is the top layer of earth. The grass roots hold the soil together.)

First, wide strips of sod were cut into rectangles. The rectangles were stacked like bricks until four walls were built. To make the roof, boards or poles were laid across the top, and more sod was placed on that.

Living in a sod house was almost like living

Some families in Osceola County built sod houses. Look for Osceola County on the map on page 3.

Oxen pull the heavy breaking plow through the tough prairie sod, and children build a rail fence.

underground. Wildflowers grew on the roof. Snakes, mice, and insects crawled in. Rain leaked—or poured—through the roof.

But the thick walls kept the sod house warm in the winter and cool in the summer. It was cheap to build. The wood for the roof and door might cost only $15. Wood for a cabin might cost $600.

Ten oxen and one plow

Breaking the prairie was the next job. Settlers had learned that the black prairie soil would grow good crops. But it had never been plowed before. The tall grasses and plants had tough and tangled root systems. The settler had to cut the tall grass and then plow through the mass of tough roots. This was called *breaking prairie*.

Breaking prairie was hard work. Some settlers hired a special crew of workers who brought their own oxen and plow. Ten or twelve oxen pulled the huge, heavy breaking plow. The moist soil clung to the *plowshare* (the blade of the plow). The thick roots dulled its edge. Every few feet the men stopped to scrape off the soil and sharpen the share.

Many farmers could not afford to hire a crew to break their sod. They did the work themselves or with neighbors.

Breaking prairie was easier after a better plow was invented. The new plow was smaller. It could be pulled by only two or three horses or oxen. The plowshare was made of polished steel that cut through the roots like a knife. The soil did not stick to the steel. Now one person could do the work of an entire crew.

As a settler plowed across the land, birds dived down to feast on the worms and insects uncovered by the plow. The plowshare made a pinging sound as it sliced through the mass of roots, as if someone was plucking a guitar string.

The first year a settler only had time to break a few acres. Kernels of corn could be planted by hand in the sod. Bigger crops of wheat or corn could not be planted until the next spring. It took that long for the overturned layer of sod to rot

away. Each year a few more acres would be broken and the settler's fields would get bigger.

Keep the animals out

Building a fence was the next job. Settlers did not fence pastures to keep their cattle, horses, and pigs in. They built fences around the crops to keep the animals out. The fences needed to be "hog tight, horse high, and bull strong."

Farmers with timberland could chop down some trees and split the logs into rails. Then they stacked the long rails into a zig-zag pattern around the field.

But wood cost too much to buy for fencing. Settlers who did not own timberland had to find other fencing materials. Some planted hedges of low, bushy trees. Others built sod fences. They dug ditches and mounded the dirt up high next to the ditch. But the animals pushed their way through the hedges or fell into the ditches.

Wire fences did not work well either until barbed wire was invented in the 1870s. Animals stayed away from these fences or they would be poked by the sharp barbs on the wire.

In the summer the settlers cut the prairie grasses and piled it into haystacks for winter feed for their animals. They used dried grasses to stuff mattresses, too. And they twisted the grasses into bundles and used them for fuel in stoves.

Smoky skies

By late autumn the prairie flowers had died. The dried grasses shone like gold in the sun. As settlers worked they watched the horizon for smoke or a reddish haze. These signs meant danger—a prairie fire!

A prairie fire could start easily from a forgotten campfire, lightning, or a careless person. Once started, it could burn for miles because the prairie was covered with dry grass.

If there was no wind, the fire burned slowly. It looked like a red line creeping along the countryside. But on windy days, the fire roared across the prairie. It could spread faster than a horse could gallop. The sky filled with smoke, and flames reached twenty feet in the air.

Settlers protected their homes and crops by plowing fire strips around them. When the flames reached the strip of plowed ground, there was nothing to catch fire. The fire could not burn on bare soil.

A fire might burn across the prairie for days. But the fire strips plowed around houses, crops, and haystacks saved the settlers and the work they had done.

No shelter from the winds

As winter approached, the prairie land was looking more like a farm. Rail fences surrounded the few acres that had been broken and planted. Garden vegetables were stored away for the winter. Tall haystacks of prairie grasses stood next to the animals' shelter.

Winters were harsh on the prairie. The cold winds blew hard. When one fellow woke up in his cabin the morning after a blizzard, snow covered his bed. "I had to wallow through six inches of snow to the head of the stairs. The stairs looked like a long white drift," he wrote later. "The wind had been so furious it had driven snow through under the door and the kitchen was about knee deep."

Can you imagine riding to school in a horse-drawn sleigh? Does this schoolhouse look warm inside?

The first years a family had little extra food or money. They hunted deer, rabbit, and prairie chicken (a kind of bird called the *grouse*). In horse-drawn sleighs they made trips into town for a few supplies.

Settlers always feared getting caught in a surprise blizzard. Then all the world seemed like swirling snow and cold, biting winds. It was easy to get lost and not know what direction to go.

The safest place was in the cabin or sod house, even if the wind did blow through the cracks. Settlers tied long ropes between their houses and barns. During a blizzard they followed the rope to reach their animals.

More fields, more farms

Each year the settlers learned more about living on the prairie. Better farm equipment was invented and made plowing and planting easier. New towns and railroads were built.

But not everything got easier. In the 1870s millions of small grasshoppers (called *locusts*) swept across the prairie in western Iowa. They ate everything in sight. Many farmers lost all their crops those years.

In some years farmers were not paid much when they sold their crops. Some gave up farming or moved farther west.

But each year the farmers that stayed in Iowa plowed and planted more fields. As trains brought lumber to towns, families bought wood and built bigger houses. They planted trees to shade their houses in the summer and to stop the winds in the winter. The prairies were almost gone. Without miles of dried grasses in autumn, fires did not start so easily or burn so much. By the 1880s Iowa was covered with farms, towns, and cities. □

Strawberries and Rattlesnakes

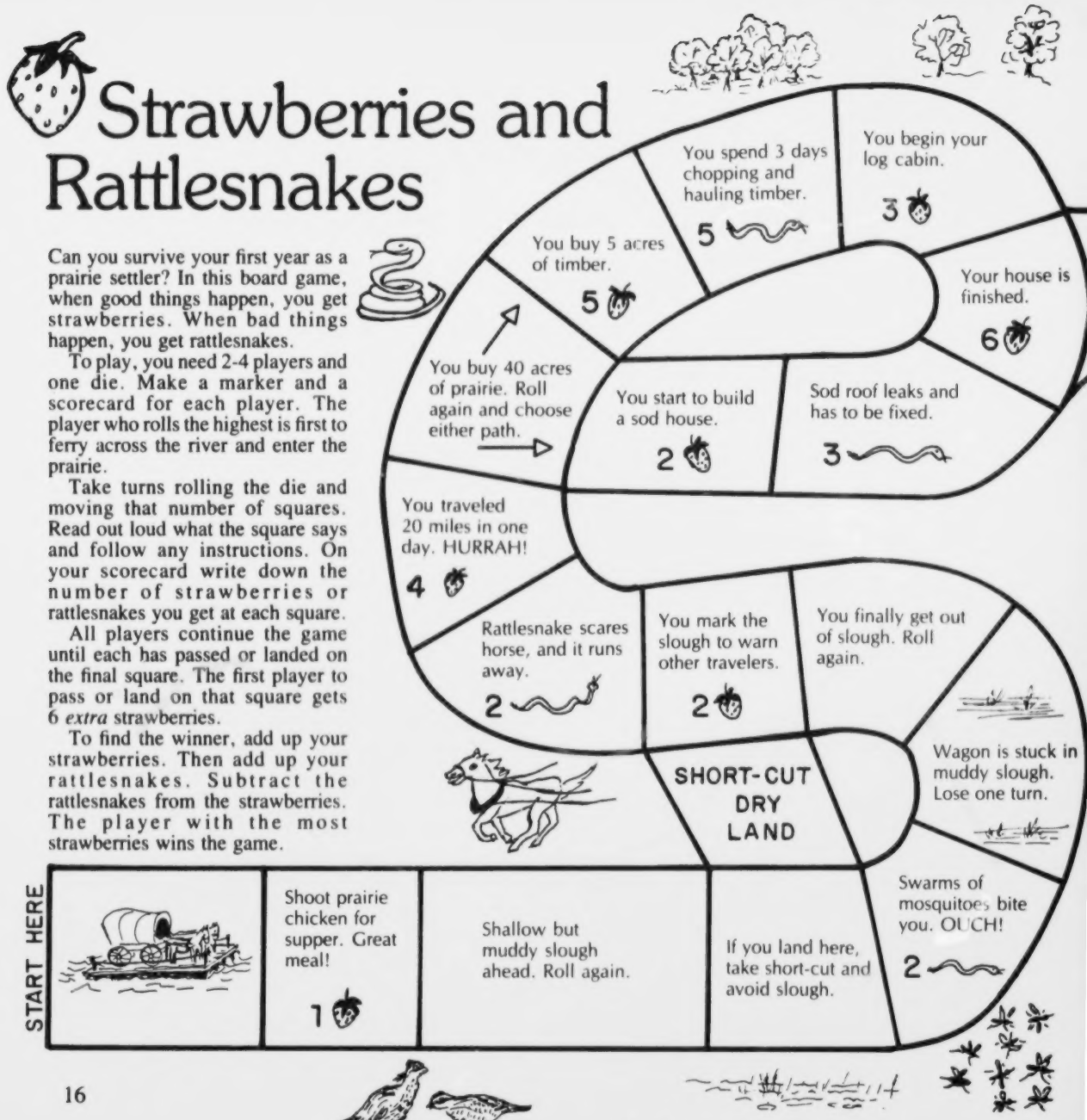
Can you survive your first year as a prairie settler? In this board game, when good things happen, you get strawberries. When bad things happen, you get rattlesnakes.

To play, you need 2-4 players and one die. Make a marker and a scorecard for each player. The player who rolls the highest is first to ferry across the river and enter the prairie.

Take turns rolling the die and moving that number of squares. Read out loud what the square says and follow any instructions. On your scorecard write down the number of strawberries or rattlesnakes you get at each square.

All players continue the game until each has passed or landed on the final square. The first player to pass or land on that square gets 6 *extra* strawberries.

To find the winner, add up your strawberries. Then add up your rattlesnakes. Subtract the rattlesnakes from the strawberries. The player with the most strawberries wins the game.


START HERE
Shoot prairie chicken for supper. Great meal! 1
Shallow but muddy slough ahead. Roll again.
If you land here, take short-cut and avoid slough.
Swarms of mosquitoes bite you. OUCH! 2
Wagon is stuck in muddy slough. Lose one turn.
SHORT-CUT DRY LAND
You finally get out of slough. Roll again.
You mark the slough to warn other travelers. 2
Rattlesnake scares horse, and it runs away. 2
You traveled 20 miles in one day. HURRAH! 4
You buy 40 acres of prairie. Roll again and choose either path.
You start to build a sod house. 2
Sod roof leaks and has to be fixed. 3
You buy 5 acres of timber. 5
You spend 3 days chopping and hauling timber. 5
You begin your log cabin. 3
Your house is finished. 6

SCORE BOARD	
STRAWBERRIES	RATTLESNAKES

YOU HAVE SURVIVED YOUR FIRST YEAR ON THE PRAIRIE!

10

(First player to pass or land here gets 6 EXTRA strawberries.)

You have time to plant shade trees and a garden.

2

You find fresh strawberries. YUM!

1

You begin plowing 3 more acres so your field will be bigger.

3

Spring is coming. Warm weather at last. Flowers bloom on the prairie.

2

Successful hunt. Fresh rabbit for supper.

3

Almost out of firewood and food.

6

Cattle are lost in surprise blizzard.

10

Winter is coming. You feel lonely.

4

PRAIRIE FIRE! You forgot to plow fire strips around haystacks. Hay burns up.

6

New neighbors move in—only 4 miles away.

3

You have made 3 haystacks of prairie grass. Good work!

3

You plow up 3 acres of prairie sod.

3

You buy a new steel plow.

2

Kay Chambers

Jemmerson Slough is a shallow marsh in Dickinson County.

What Do You Do With a Slough?

HENRY Bolander's farm produced corn, wheat, frogs, and mosquitoes. Henry could not grow crops on all of his land. The swampy *sloughs* (slues) were too wet to plow. Frogs and mosquitoes, muskrats and songbirds lived there.

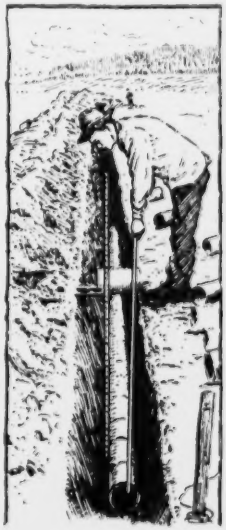
Northwest Iowa was the last part of Iowa to be settled. Settlers there faced two problems—not enough timberland and too much water.

Settlers learned to build their houses out of sod. They planted groves of trees for future timberland. In the 1870s railroads were finally built in northwest Iowa. The trains brought lumber that the farmers could buy. All this helped solve the timber problem.

But settlers like Henry Bolander still faced the water problem. Henry lived in the *central* part of northwest Iowa where the land is very flat. Melting snow and rain did not drain away. The water collected in shallow lakes, marshes, and sloughs. Parts of the prairie stayed soggy all summer. Horses and wagons got stuck in the mud.

Farmers could not plow these wetlands. They cut the tall slough grasses for hay. They trapped muskrats and sold the furs. They hunted the geese and ducks that nested in the marshes. But farmers wanted to grow crops, not hunt ducks.

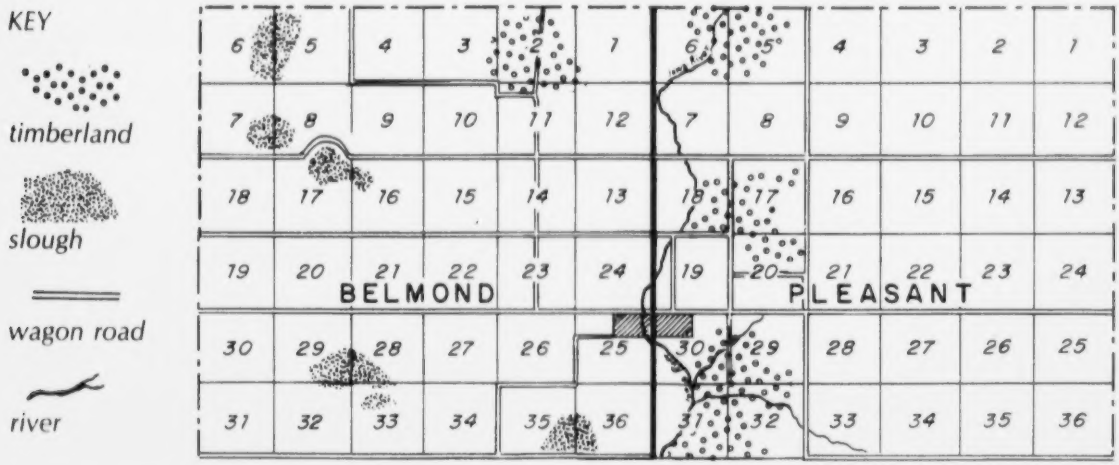
In the 1880s farmers began draining the land. They dug long ditches to let the water run out of sloughs and into streams and rivers. They buried clay pipes (called *tiles*). The tiles carried away the extra water in the ground.



As the sloughs and marshes dried up, the wildlife there disappeared. Farmers could use *all* of their fertile, flat land for crops. Where frogs had croaked, corn now grew. □

Map Game

You are a settler in 1875 in northwest Iowa. To decide what land to buy, play this game. This map shows features created by nature (rivers, timberland, and sloughs). It also shows features created by people (roads and boundaries). Iowa is divided into *counties*, *townships*, and *sections*. This map shows Belmond Township and Pleasant Township in Wright County. Each township has 36 sections. *Answers on page 23.*



Kay Chambers

1. Which township has more timberland? _____
2. Which township has sloughs? _____
3. If you settle in Section 32 of Pleasant Township, will you live near a slough or near timberland? _____
4. Why does the road curve in Section 8 of Belmond Township? _____
5. In which township is the Iowa River? _____
6. Where else would you find timber besides at the places marked on the map? _____
7. Which land would probably cost more—land in Section 17 of Belmond Township or Section 17 of Pleasant Township? Why? _____
8. How many miles wide is Pleasant Township? (Hint: Each section is one mile long.) _____
9. Mark the section where you would like to buy land.

The People of Iowa

By the time Ada Hayden was born, in 1885, most of the prairie in Iowa had become farmland. Ada's parents were farmers near Ames. They decided that they would never plow several acres of prairie on their farm. The prairie would be kept just as it had been for hundreds of years. Ada learned about the prairie wildflowers and grasses when she was a child.

One early spring day, Ada took a bouquet of prairie wildflowers to her high school principal. That day Dr. Louis H. Pammel visited the principal. Dr. Pammel was a college professor of *botany* (the study of plants). He noticed the blue flowers. They had been one of his favorite wildflowers when he was a farmboy in Wisconsin. He asked where the flowers came from, and the principal introduced him to Ada.

Ada Hayden's drawing of a prairie milkweed.

Iowa Geological Survey

Ada and Dr. Pammel soon became close friends. Ada showed him her prairie and her drawings of plants. Dr. Pammel encouraged Ada to go to college at Iowa State University in Ames. And she did.

Ada studied botany for many years. She was the first woman to receive her *doctorate* from the university. (A doctorate is the highest degree a college can give.)

All of her life Ada searched for prairies that had not yet been plowed under. She identified many prairie and water plants. She waded through marshes and rowed her boat on lakes so that she could photograph water plants. She was a professor, author, artist, and photographer.

Ada Hayden

Ada died in 1950. Today, a 240-acre prairie in Howard County is named Hayden Prairie in her honor. Botanists like Ada Hayden and Louis Pammel worked hard to save some prairie land for future Iowans. Today we can enjoy the birds and plants that Ada studied and drew when she was a girl one hundred years ago.

Are There Any Prairies Today?

ON THEIR WAY to school everyday, the Mitchell children followed a strip of plowed ground from their home to the schoolhouse. Their father had plowed the strip across the prairie so his children would not get lost. In 1857 the prairie seemed huge and empty. It was easy to wander off in the wrong direction.

The children may have seen deer and coyote, rattlesnakes and gophers, rabbits and prairie chickens. Perhaps the children stopped to break open the compass plant. The sap inside made a sticky chewing gum. Perhaps they walked through patches of violets so thick that it looked like "a piece of sky had fallen on the earth."

Thousands of children grew up on the Iowa prairies. They herded cattle and rode horses across the prairie. They learned to stay out of sloughs, to listen for rattlesnakes, and to search for wild strawberries. They helped plow the fields and plant gardens, orchards, and shade trees.

Settlers were eager to plow up the prairie because they knew what fine crops would grow there. For centuries the prairie grasses had grown tall, died down, and decayed into *humus*. This humus had become a deep layer of fertile soil.

When settlers first came to Iowa in the 1830s, over 29 million acres of the state were prairie land. By the 1880s—only 50 years later—almost all of the prairie had become farmland. Now some prairie plants and wildlife are endangered and could become extinct.

Today many Iowans want to protect Iowa's 10,000 remaining acres of prairie. Where are the few prairies that have never been plowed? Some are small pieces of land, in country cemeteries or along roads and train tracks. Others are as big as 240 acres. Public and private groups and individuals own these prairies. Some people are trying to grow new prairies by planting the tall grasses and wildflowers.

But planting a prairie is not like planting a garden. A real prairie had over 200 kinds of plants. Trees did not grow well because the climate was too dry and the grasses grew too thick. Prairie fires destroyed any shrubs and young trees. But the grasses grew back quickly because their deep roots were still alive. Even insects and animals that burrowed in the ground survived the fire.

Scientists want to learn more about the prairie. Why did Native Americans and settlers use certain plants for medicines? Can they be used in medicines today? How did prairie plants survive harsh weather and plant diseases? Can this information help farmers grow better crops? If prairies disappear, the answers to these questions disappear, too.

The prairies also give us clues to what life was like 150 years ago. We can pretend we are the Mitchell children, dodging rattlesnakes and picking violets on the way to school each day. □

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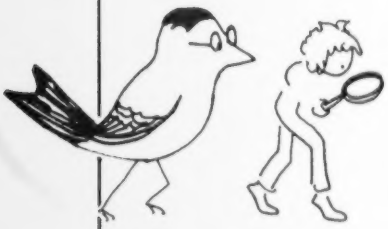
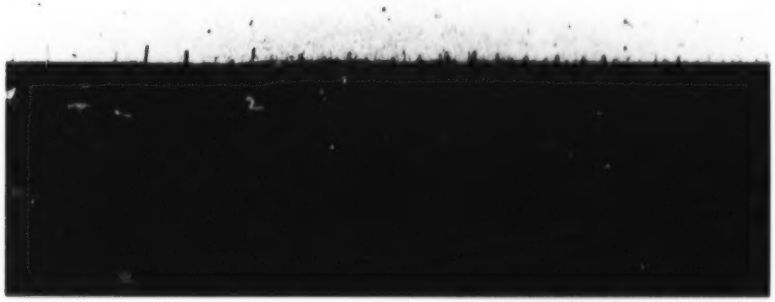
History Mystery





CLUES:

1. Settlers from the east heard that farming in Iowa was easier because the soil was not rocky.

2. But some settlers *did* find many rocks and boulders scattered across their fields.

3. Now and then a rock bigger than a horse or even bigger than a covered wagon was discovered.

4. Geologists call these rocks *erratics*.

5. The word *erratic* means *wandering*.

How did all these rocks and boulders get in this Iowa field?
(Answer on page 23.)

Pass It On

Pass this page on to someone who might share your interest in prairies. A teacher or parent, a grandparent or friend? These projects would be fun to do together.

Imagination Exercises

The prairies gave different feelings to different people. Some felt excited and free by all the open space. Others felt lonely and frightened.

Try to imagine the prairie. The land seems to stretch on forever. The only trees are along the streams. It is hard to find shade from the sun. The summer winds sweep through the tall grasses and flowers. Birds sing and mosquitoes buzz in the sloughs. In the winter your home is surrounded by miles of snow-covered prairie. What feelings does the prairie give you?

Reading Together

Reading out loud to younger readers is a way to share more challenging reading material. Two Iowa authors who wrote about prairie childhoods are Hamlin Garland (*Boy Life on the Prairie*) and Bess Streeter Aldrich (*A Lantern in her Hand*). Choose chapters of either book to read aloud. *Goldfinch* issues still available on "Early Agriculture" and "The Shape of the State" feature pioneer farming and surveying of Iowa.

A Table-Top Prairie Farm

Build a model sod house with dominoes as slabs of sod. Leave a space for a door. Make a cardboard roof and pat soil onto it. Build a rail fence with short sticks. Copy the zig-zag pattern from pictures in this *Goldfinch*. Use rubber cement to hold the ends of sticks together.

A Paper Prairie

Hang a ten-foot strip of paper vertically on the wall. Mark on it the heights of a child, an adult, and an adult riding a horse. Draw outlines of each. Now add prairie plants. Spring flowers were low to the ground. Summer flowers and grasses were quite tall—some over eight feet. Imagine walking through grasses taller than you are.

For more information on Iowa prairies, contact the Iowa Conservation Commission (Wallace Building, Des Moines, Iowa 50319), your county conservation board, or The Nature Conservancy (424 10th Street, Suite 311, Des Moines, Iowa 50309).

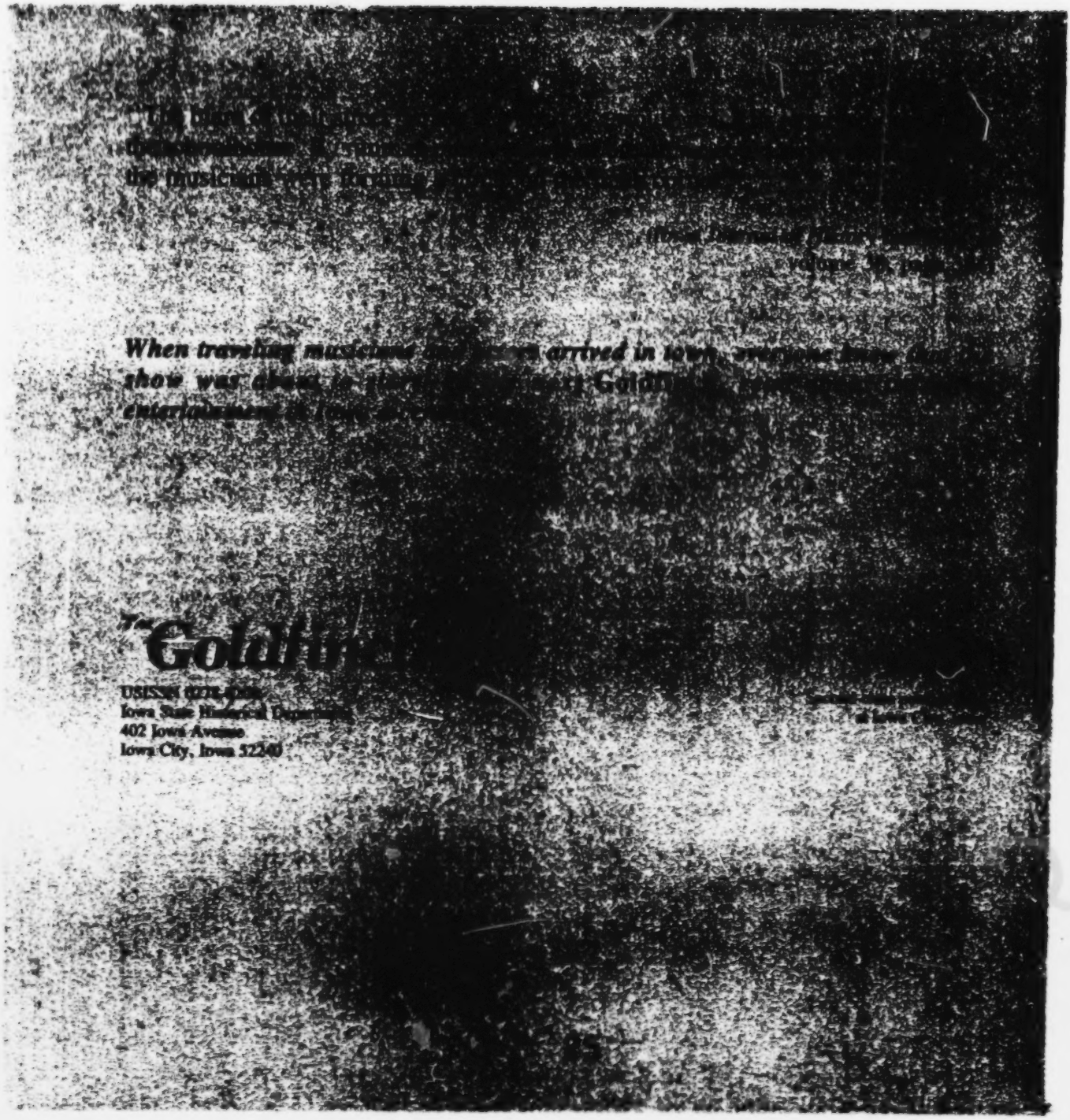
Answers

Map, page 19: 1. Pleasant 2. Belmond 3. Timber 4. The road must go around the slough. 5. Pleasant 6. Along the Iowa River 7. Pleasant. Settlers would value the timber in the nearby section. The slough in Section 17 of Belmond Township could not grow crops until it was drained. 8. 6 miles. 9. We hope not in a slough!

History Mystery, page 22: The rocks came with the last Ice Age glacier, which covered north-central Iowa. As the ice built up, rocks were frozen into it and dragged along. The weight of the glacier scooped out shallow places. When the ice melted, the shallow places became sloughs and lakes. You might say the rocks "wandered" here from Canada and Minnesota.

"Conflicts and Compromises" is the 1986 theme for History Day. Students in grades 6-12 may enter individual or group projects, papers, or performances in district contests this spring. Contact History Day, 631 Ross Hall, Iowa State University, Ames, Iowa 50011, or your Area Education Agency.

March 2-8, 1986, is Women's History Week. Students in grades 6-9 may enter the state-wide "Write Women Back into History" essay contest, sponsored by the Iowa Commission on the Status of Women, in cooperation with the Iowa State Historical Department and the Department of Education. February 14 is the contest deadline. Contact the Commission at 507 Tenth Street, Des Moines, Iowa 50319 (phone 515-281-4470).



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